A NOTE ON *EPITONIUM (GYROSCALA) PERPLEXUM* PEASE IN AUSTRALIA
(GASTROPODA: EPITONIIDAE)

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Plate 10

The report by Powell (1965, p. 161) of the first record for New Zealand of *Epitonium perplexum* (Pease, 1867) is interesting, though not surprising. The species is ubiquitous throughout the Indo-Pacific area and is also closely related to the Atlantic-Mediterranean *lamellosum* Lamarck. However, the name listed by Iredale and McMichael (1962) for similar shells from New South Wales, *Pomiscala perplicata* (Iredale, 1929), and mentioned by Powell, needs correction.

The name, *Scalaria perplexa* Pease, was first listed for Australia by Whitelegge (1889, p. 99), the Molluscan section being compiled by John Brazier. The next use of the name was by Hedley (1918, p. M65) where it appeared under the genus *Epitonium*. Iredale (1929, p. 344) re-named the N.S.W. shell *Scala perplicata* and subsequently (1936, p. 303) made it the type of a new genus, *Pomiscala*.

Taxonomy of species: For the following reasons *P. perplicata* is considered a synonym of *E. perplexum*:

(i) *Number of ribs on the body whorl*: Pease described a Hawaiian shell with 9-10 ribs; the holotype of *perplicata* Iredale has 13. A large series, ranging from north Queensland to eastern Victoria, shows wide variation from any one location. For example, in 30 shells from Long Reef, N.S.W., the range is from 8 to 15 ribs. Shells from Hawaii, examined recently, have a similar range.

(ii) *Shell colour*: The Hawaiian shell ". . . is dark brown at the sutures rarely the whole space between the varices coloured dark, purplish brown . . .". Iredale's *perplicata* was said to be uncoloured. Here again Iredale was mistaken because of insufficient comparative material. The uncoloured shell is not typical of the species in Australia. The majority have the sutural band of variable width and some have also a faint row of peripheral flecks and an additional basal band. The brown form also occurs here, rarely, as in Hawaii.

(iii) *Shell measurements*: Measurements of the holotype of *perplicata* in The Australian Museum, Sydney, show it to be 24 mm. in height by 12 mm. in width; not 36 mm. by 11 mm. as stated by Iredale. The drawing illustrating his type (Iredale, 1936) is curiously out of proportion in the opposite direction; the width is far too great. Pease gives 32 mm. x 13 mm. for the Hawaiian type. Here, again, the species in Australia, as elsewhere, shows considerable variation and shells of dimensions of the Hawaiian type occur.

Generic position: A generic change must also be made. As *perplexum* (=*perplicata*) is considered scarcely separable from the well-known *lamellosum* Lamarck, it follows that it should share the same genus

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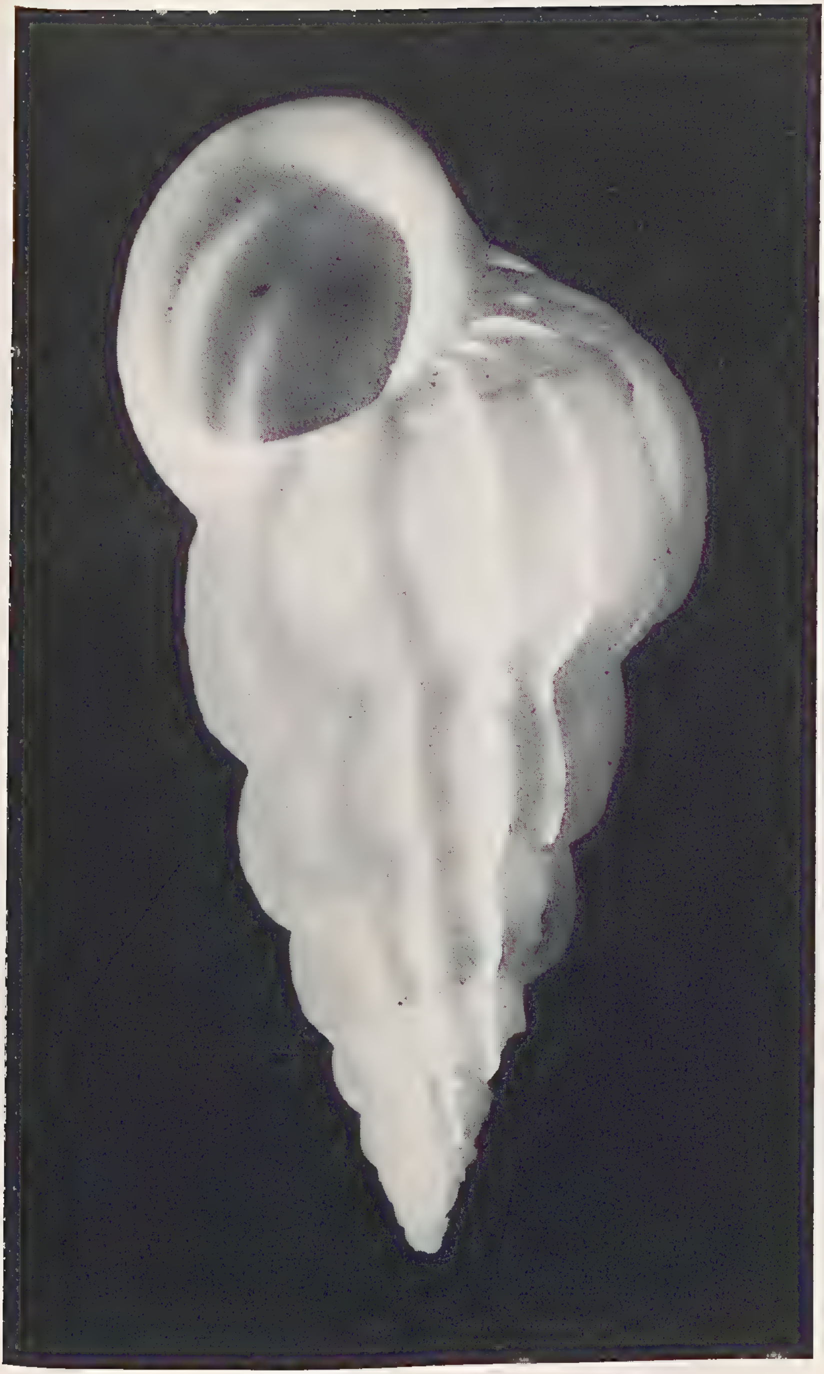

PLATE 10

Scala perplicata Iredale. Holotype, Australian Museum No. C 50457. Mallacoota, Vict., Coll. R. Bell. Photo: C. V. Turner.

or sub-genus. This is *Gyroscala* de Boury (1887, p. 15) of which *commutatum* Monterosato (=*lamellosum* Lam.) is the type species. Iredale's genus *Pomiscala* with type *perplicata* is therefore a synonym of *Gyroscala*. I propose to use *Gyroscala* as a sub-genus of *Epitonium* pending more detailed knowledge of this complex family.

Range: In eastern Australia the species has been collected from Mallacoota in north-eastern Victoria to Port Douglas, north Queensland. In Western Australia it is known from Rottnest Island near Perth and from Carnarvon. It is fairly safe to predict that with more intensive collecting in the north and north-west, these records will be much extended. *Scala* (*Pomiscala*) *reevesbyi* Cotton (1939), from Reevesby Island, South Australia, appears to be synonymous with *perplexum*, but I have not had the opportunity to examine the type.

Habitat: Shells on the east coast are found on rocky platforms exposed to the ocean and live specimens have been collected in the sand lying in shallow gutters between tide levels.

Eggs and Operculum: I have not seen the eggs of this species, but quote from a brief description of an animal observed at Coolum, south Queensland, sent to me by Mrs. Dulcie Freebairn of Gympie. It was ". . . on a green moss on the rocks and had just laid a string of eggs. The eggs were white and about the size of a pin head and were attached to a long string like a piece of cotton."

The operculum is light buff in colour, thin, corneous and paucispiral.

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